

### Remarks

This application was originally filed with 56 claims. Previously, Claims 5, 8-29, and 33-56 were cancelled and Claims 57-61 were added. Claim 61 has been allowed. Claims 1-4, 6, 7, 32, 57, and 60 have been rejected. Claims 30, 31, 58, and 59 have been objected to. Therefore, Claims 1-4, 6, 7, 30-32, and 57-61 are pending in this application. Applicant respectfully requests reconsideration of the pending claims in this Application based on the arguments submitted below.

### The 35 U.S.C. § 102 Rejections

The Examiner stated his objection to the claims as follows: "Claims 1-4, 6, 7, 32, 57, 60 are rejected under 35 U.S.C. § 102(b) as being fully met by Schimdt et al (USP 6353174)." Schimdt et al has a filing date of December 10, 1999. Applicant respectfully submits that the Application has priority over Schmidt et al because the Application claims the benefit of two provisional applications that pre-date the Schmidt reference. For convenience, the benefit claims from page 1, lines 3-17 of the Application are reproduced below:

"This application is a continuation of and claims benefit of U.S. Patent Application Serial No. 09/995,405 filed November 27, 2001, entitled 'Universal Digital Media Communications and Control System and Method' which is a continuation-in-part of and claims benefit of co-pending U.S. Patent Application Serial No. 09/557,560 filed April 25, 2000, now U.S. Patent No. 6,353,169 issued on March, 5, 2002, entitled 'Universal Communications and Control System For Amplified Musical Instruments', which claims benefit of our previously filed provisional applications Serial No. 60/131,031 filed April 26, 1999, entitled 'Universal Communications and Control System

For Amplified Musical Instrument', and Serial No. 60/156,003 filed September 23, 1999, entitled 'Universal Communications and Control System For Amplified Musical Instrument.'"

Applicant has generated the following chart associating Claims 1-4, 6, 7, 32, 57 and 60 to provisional application 60/156,003 in support of Applicant's contention that the Application has priority over Schmidt et al:

Nonprovisional Application 10/694,710	Provisional Application 60/156,003 filed on Sept. 23, 1999
<b>Claim 1:</b> (Preamble) A digital media communications and control system comprising:	"The GMICS system is . . . bi-directional digital connection of musical instruments, processing devices, amplifiers or recording systems. . . Each GMICS device generates, processes, relays, or receives audio data, control data, or both." <i>See page 11, lines 12-16.</i> "[A] system that will allow . . . digital audio signals and data to flow over a single cable in both directions . . ." <i>See page 6, lines 4-19.</i>
a plurality of audio devices,	"GMICS system may include a guitar, amplifier, and volume pedal." <i>See page 11, line 12 - page 12 line 3.</i> <i>See also figure 1; figure 2; and figure 9.</i>
each of the devices including a device interface module	"Bi-directional device interface" <i>See page 7, line 21 - page 8, line 4.</i> <i>See also figure 6.</i>
for communication of digital audio data and control data from at least one of the devices to at least one other of the devices;	"GMICS enables musical instruments and their supporting devices such as amplifiers, mixers, and effect boxes from different vendors to digitally inter-operate in an open-architecture infrastructure." <i>See page 9, lines 16-18.</i> "The GMICS system is a . . . bi-directional digital connection of musical instruments, processing devices, amplifiers or recording systems. . . Each GMICS device generates, processes, relays, or receives audio data, control data, or both." <i>See page 11, lines</i>

	<p>12-16.  <i>See also figure 1; figure 2; and figure 9.</i></p>
a universal data link operatively connected to each of the device interface modules;	<p>“Each device has one or more GMICS Link connections. A GMICS system is comprised of devices that have GMICS data links.” <i>See page 11, line 12 - page 12 line 3.</i>  <i>See also figure 1; figure 2; page 69, lines 4-12; page 81, lines 10-12.</i></p>
the device interface modules and universal data links are operative in combination to connect the devices together in the system and provide full duplex communication of the digital audio data and control data between the devices; and	<p>“The GMICS Link is a high-speed point-to-point connection transmitting full-duplex digital audio, control, and user data between two interconnected GMICS devices.” <i>See page 6, lines 16-18.</i>  <i>See also page 7, line 21 - page 8, line 4; page 6, lines 4-7; figure 1; and figure 2.</i></p>
wherein each data link includes a conventional CAT5 network cable terminated by conventional RJ-45 connectors.	<p>“This GMICS transport uses standard CAT5 cable and RJ-45 connectors.” <i>See page 12, lines 10-13.</i>  <i>See also page 19, lines 9-10; figure 5.</i></p>
<b>Claim 2:</b> The system of Claim 1 wherein each data link comprises one and only one of said CAT5 network cables connecting a pair of devices.	<p>“GMICS uses a standard Category 5 cable for device interconnection.” <i>See page 20, lines 2-5.</i>  “Of the eight conductors in a standard Category 5 (“CAT5”) cable, only four are used for data transport. G100TX uses the four unused conductors to supply phantom . . .” <i>See page 13, lines 5-8.</i>  <i>See also figure 5; figure 6.</i></p>
<b>Claim 3:</b> The system of Claim 1 further comprising a network hub and	<p>“GMICS is designed to function [as] a . . . <u>hub-centric system</u>.” <i>See page 27, lines 20-21.</i>  <i>See also page 69, lines 4-12; figure 1; figure 2; page 8, line 20 - page 9, line 1; page 35 lines 7-20.</i></p>
wherein at least some of the data links comprise said CAT5 network cables connecting the device interface modules to the hub in a network topology	<p>“As each instrument and amplifier are connected into a hub on the stage via simple RJ-45 network connectors.” <i>See page 69, lines 9-11.</i>  “<i>This includes both the data transport mechanism and the interconnecting cables and connectors. This GMICS transport uses standard CAT5 cable and RJ-45 connectors.</i>” <i>See page 12, lines 11-13.</i></p>

	<p><i>See also figure 1; figure 2; page 20, lines 15-16; page 26, lines 9-11.</i></p>
whereby the digital audio data and control data that are communicated over the data links are accessible by each of the devices linked to the hub without having a direct connection between the devices.	<p>“special effects devices can be shared without physically moving or connecting them;” “physical connection into the system through any available connector;” “guitar does not have to be directly plugged into the guitar amplifier.” <i>See page 8, lines 9-16.</i></p> <p><i>See also figure 1; figure 2; figure 9.</i></p>
<b>Claim 4:</b> The system of Claim 1 wherein each CAT5 network cable includes four twisted wire pairs, two of said pairs carrying phantom power to the devices.	<p>“GMICS uses a standard Category 5 cable for device interconnection. A single cable contains four twisted pairs. Two pairs are used for data transport as in 100BASE-TX network connection. The remaining two pairs are used for power.” <i>See page 20, lines 1-5.</i></p> <p><i>See also page 21, lines 5-8; page 26 lines 5-22.</i></p>
<b>Claim 6:</b> The system of Claim 1 wherein the audio devices comprise audio transducer devices, the transducer devices including one or more devices selected from a group comprising musical instruments, microphones, headphones, audio speakers, and audio recording devices.	<p>“A GMICS system may include . . . ‘instruments’ . . . An instrument is typically a sound transducer such as a guitar, microphone, or speaker.” <i>See page 7, lines 3-5.</i></p> <p><i>See also page 9, lines 10-11; page 74, line 11 - page 75 line 12; figure 1; figure 2.</i></p>
<b>Claim 7:</b> The system of Claim 6 wherein the audio devices further comprise audio controller devices, the controller devices including one or more devices selected from a group comprising audio amplifiers and system control devices.	<p>“A GMICS system may include . . . ‘controllers’ . . . A controller is typically an intelligent amplifier that provides connections and power for multiple GMICS instruments . . . Controllers may also include upstream and downstream connections to other controllers for increased instrument connectivity.” <i>See page 7 lines 3-9.</i></p> <p>“GMICS technology can be quickly adapted for use in musical instruments, processors, amplifiers, recording devices, and mixing devices. <i>See page 9 lines 10-11.</i></p> <p><i>See also page 9, lines 16-18; page 11, lines 12-14; figure 1; figure 2; figure 3.</i></p>

<p><b>Claim 32:</b> The system of Claim 1 wherein functions performed by one of the audio devices can be shared by more than one of the other devices connected to the system.</p>	<p>“special effects devices can be shared without physically moving or connecting them;” “physical connection into the system through any available connector;” “guitar does not have to be directly plugged into the guitar amplifier.” <i>See page 8, lines 9-16.</i>  <i>See also figure 1, figure 2; page 11, line 17 - page 12, line 3; figure 9.</i></p>
<p><b>Claim 57:</b> The system of Claim 1 wherein the audio and control data are in big endian order.</p>	<p>“[T]he GMICS Link uses currently available components, the Ethernet standard (the communications protocol), a commonly used RJ45 connector and a new communications protocol utilizing Internet type formatting.” <i>Page 73, lines 19-21.</i>  This discloses that the devices function on a standard network which is known to operate using data in big endian order, just as well as the cited Schmidt reference does.</p>
<p><b>Claim 60:</b> (Preamble) A digital media communications and control system comprising:</p>	<p>“The GMICS system is . . . bi-directional digital connection of musical instruments, processing devices, amplifiers or recording systems. . . Each GMICS device generates, processes, relays, or receives audio data, control data, or both.” <i>See page 11, lines 12-16.</i>  “[A] system that will allow . . . digital audio signals and data to flow over a single cable in both directions . . .” <i>See page 6, lines 4-19.</i></p>
<p>a plurality of audio devices,</p>	<p>“GMICS system may include a guitar, amplifier, and volume pedal.” <i>See page 11, line 12 - page 12 line 3.</i>  <i>See also figure 1; figure 2; and figure 9.</i></p>
<p>each of the devices including a device interface module</p>	<p>“Bi-directional device interface” <i>See page 7, line 21 - page 8, line 4.</i>  <i>See also figure 6.</i></p>
<p>for communication of digital audio data and control data from at least one of the devices to at least one other of the devices;</p>	<p>“GMICS enables musical instruments and their supporting devices such as amplifiers, mixers, and effect boxes from different vendors to digitally inter-operate in an open-architecture infrastructure.” <i>See page 9, lines 16-18.</i>  “The GMICS system is a . . . bi-directional</p>

	<p>digital connection of musical instruments, processing devices, amplifiers or recording systems. Each GMICS device generates, processes, relays, or receives audio data, control data, or both.” See page 11, lines 12-16.  <i>See also figure 1; figure 2; and figure 9.</i></p>
a universal data link operatively connected to each of the device interface modules;	<p>“Each device has one or more GMICS Link connections. A GMICS system is comprised of devices that have GMICS data links.” See page 11, line 12 - page 12 line 3.  <i>See also figure 1; figure 2; page 69, lines 4-12; page 81, lines 10-12.</i></p>
the device interface modules and universal data links are operative in combination to connect the devices together in the system and provide full duplex communication of the digital audio data and control data between the devices; and	<p>“The GMICS Link is a high-speed point-to-point connection transmitting full-duplex digital audio, control, and user data between two interconnected GMICS devices.” See page 6, lines 16-18.  <i>See also page 7, line 21 - page 8, line 4; page 6, lines 4-7; figure 1; and figure 2.</i></p>
wherein the audio and control data are in big endian order.	<p> “[T]he GMICS Link uses currently available components, the Ethernet standard (the communications protocol), a commonly used RJ45 connector and a new communications protocol utilizing Internet type formatting.” Page 73, lines 19-21.  This discloses that the devices function on a standard network which is known to operate using data in big endian order, just as well as the cited Schmidt reference does.</p>

### Allowable Subject Matter

The Office Action states that “Claims 30,31,58,59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” Applicant respectfully submits that in light of the

Application's priority over Schmidt et al the objection to Claims 30, 31, 58, and 59 should be removed.

### **Conclusion**

For all of the reasons set forth above it is respectfully submitted that Claims 1-4, 6, 7, 30-32, and 57-61 are all in condition for allowance.

Respectfully submitted,

/Lucian Wayne Beavers, 28,183/  
Lucian Wayne Beavers  
Registration No. 28,183  
WADDEY & PATTERSON  
A Professional Corporation  
Customer No. 23456

ATTORNEY FOR APPLICANT

Lucian Wayne Beavers  
Waddey & Patterson, P.C.  
Roundabout Plaza  
1600 Division Street, Suite 500  
Nashville, TN 37203  
(615) 242-2400